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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,861	11/29/2001	Timothy A. Hegemier	60680-1489	6729

10291 7590 02/24/2004

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EXAMINER

KEASEL, ERIC S

ART UNIT	PAPER NUMBER
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3754

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,861

Applicant(s)

HEGEMIER ET AL.

Examiner

Eric Keasel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,7,8,11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,9,10 and 17-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 Nov 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. This application contains claims 3, 4, 7, 8, 11, and 12 drawn to an invention nonelected with traverse in Paper No. 7. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “uninterrupted circumferential bottom surface” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The specification is objected to as failing to provide clear support for the claim terminology. 37 CFR § 1.75(d)(1) requires that terms and phrases used in the claims find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description (see MPEP 608.01(o)). Specifically, the term “uninterrupted circumferential bottom surface” does not appear in the specification.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 2, 5, 6, 9, 10, and 17-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicant has amended the independent claims to recite an “uninterrupted circumferential bottom surface”. The fact that the bottom surface is interrupted by protuberances that “bite” into the surface of the cylinder head is a key feature of the anti-rotation apparatus. The recitation that the bottom surface is uninterrupted introduces new matter into the specification. This is a new matter rejection.

6. Claims 1, 2, 5, 6, 9, 10, and 17-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant has amended the independent claims to recite an “uninterrupted circumferential bottom surface”. The fact that the bottom surface is interrupted by protuberances that “bite” into the surface of the cylinder head is a key feature of the anti-rotation apparatus. One of ordinary

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skill in the art would not be able to make an uninterrupted surface that is interrupted by protuberances.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1, 2, 5, 6, 9, 10, and 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has amended the independent claims to recite an "uninterrupted circumferential bottom surface". The fact that the bottom surface is interrupted by protuberances that "bite" into the surface of the cylinder head is a key feature of the anti-rotation apparatus. It is vague and indefinite as to what applicant means by "uninterrupted" when a key feature of the invention is that the bottom surface is interrupted by protuberances.

9. In light of the above informalities, the claims have been examined as could best be understood by the examiner. The examiner's failure to apply prior art to any of the claims should not be construed as an indication of allowable subject matter.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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11. Claims 1, 2, and 17 (as understood to the extent the claims are supported by the originally filed disclosure) are rejected under 35 U.S.C. 102(b) as being anticipated by Heshner (US Patent Number 6,119,645).

Heshner discloses a valve stem seal anti-rotation assembly comprising an elastomeric seal body (40) and a cylindrical retainer (42) defining a longitudinal axis, said retainer comprising an upper end portion that circumferentially supports said seal body (see Fig. 4); said elastomeric seal body comprising an annular valve stem seal adapted for sealingly engaging a reciprocally movable valve stem (32); said cylindrical retainer further comprising a lower extremity defining a radially outwardly extending spring seat flange (44) including a radially extending bottom surface adapted to bear against a cylinder head deck (24), wherein said bottom surface comprises at least one protrusion (72) extending axially downwardly therefrom and adapted for engagement with at least one depression (76) in the cylinder head deck that corresponds to said protrusion; wherein said protrusion on said bottom surface of said spring seat flange that engages said depression is adapted to resist torque forces applied to said spring seat flange by mechanical vibrations.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 5, 6, 9, 10, 18, and 19 (as understood to the extent the claims are supported by the originally filed disclosure) are rejected under 35 U.S.C. 103(a) as being unpatentable over Heshner in view of DeBolt.

Heshner discloses a valve stem seal anti-rotation assembly comprising an elastomeric seal body (40) and a cylindrical retainer (42) defining a longitudinal axis, said retainer comprising an upper end portion that circumferentially supports said seal body (see Fig. 4); said elastomeric seal body comprising an annular valve stem seal adapted for sealingly engaging a reciprocally movable valve stem (32); said cylindrical retainer further comprising a lower extremity defining a radially outwardly extending spring seat flange (44) including a radially extending bottom surface adapted to bear against a cylinder head deck (24), wherein said bottom surface comprises at least one protrusion (72) extending axially downwardly therefrom and adapted for engagement with at least one depression (76) in the cylinder head deck that corresponds to said protrusion; wherein said protrusion on said bottom surface of said spring seat flange that engages said depression is adapted to resist torque forces applied to said spring seat flange by mechanical vibrations.

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Hesher discloses the sharp edge of the protrusion seating in a preformed depression in the deck rather than having the protrusion being adapted to "bite" the deck to create the depression. DeBolt discloses a similar anti-rotation valve stem seal that has protrusions (40) on the flange of the spring retainer, wherein the protrusions create depressions (indentations) that the protrusions sit in to prevent undesirable rotation (see column 4, lines 9-21). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the sharp edge of the protrusion of Hesher to create the depression in a similar manner as taught by DeBolt in order to allow the depressions to be formed on various surfaces as taught by DeBolt.

Response to Arguments

14. Applicant's arguments filed 7 Jan 2004 have been fully considered but they are not persuasive.

Applicant states that the new recitations of an "uninterrupted circumferential bottom surface" distinguish the claims over Hesher or Hesher in view of DeBolt. The examiner disagrees. The bottom surface of Hesher and applicants' disclosed invention are both interrupted by protuberances that bite into the deck.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Keasel whose telephone number is (703) 308-6260. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (703) 308-2696. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EK 23FEB04
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23 Feb 2004


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